32. Phytolaccin is a hepatic stimulant of considerable power. It also slightly stimulates the intestinal glands.

33. Acetate of lead, in large doses, somewhat diminishes the secretion of bile, probably by a direct action on the liver.

34. Ammonium-phosphate is a moderately powerful hepatic stimulant of the liver. It does not stimulate the intestinal glands.

35. Tannic acid does not affect the secretion of bile.

36. Hydrastin is a moderately powerful hepatic stimulant, and a feeble intestinal stimulant.

37. Juglandin is a moderately powerful hepatic and a mild intestinal stimulant.

38. Sodium-benzoate is a powerful hepatic stimulant. It is not an intestinal stimulant.

39. Ammonium-benzoate stimulates the liver, but not quite so powerfully as the sodium-salt of benzoic acid. It does not stimulate the intestinal glands.

40. Benzoic acid stimulates the liver, but, owing to its insolubility, its action is less rapid and much less powerful than that of its alkaline salts.

41. Sodium salicylate is a very powerful hepatic stimulant. It does not notably stimulate the intestinal glands.

42. Sodium-chloride is a very feeble hepatic stimulant.

43. Sodium-bicarbonate has scarcely any appreciable effect as a hepatic stimulant, even when given in very large doses.

44. Potassium-bicarbonate feebly excites the liver, and that only when given in very large doses.

45. Potassium-iodide has no notable effect on the biliary secretion.

46. Sulphate of manganese does not excite the liver, though it is a powerful excitant of the intestinal glands.

47. Morphia has no appreciable effect on the secretion of bile, and does not prevent the stimulating effect of such a substance, as sodium-salicylate.

48. Hyoscyamus does not notably affect the biliary secretion, and does not interfere with the stimulating effect of such a substance as sodium-salicylate.

49. Pure diluted alcohol does not affect the biliary secretion.

50. Jaborandi is a very feeble hepatic stimulant.

All the above conclusions are based on experiments performed on the dog, and have no reference to any observations made on the human subject.

The Action of Pituri on Man.

Dr. Sydney Ringer contributes to the *Lancet* (March 1, 1879) a short article on this interesting drug, which is derived from Duboisia Hopwoodii, and belongs to the order Solanaceæ, but differs strangely from the other medicinal plants derived from this family. From twelve observations made with pituri on man, Dr. Ringer finds that it produces faintness, pallor, giddiness, tremor, hurried and superficial breathing, increased frequency of pulse, perspiration; in larger doses, salivation, drowsiness, convulsive twitchings, spasmodic rigidity of the extremities. In small doses, internally administered, it contracts, in large it widely dilates the pupils; locally applied, it contracts and then widely dilates the pupils. It antagonizes the action of pilocarpine and muscarin on the frog's heart.

Whilst retaining many of the properties of solanaceous plants, pituri differs in some striking particulars. Like atropia, hyoscyamia, daturine, and duboisia, it produces general weakness and drowsiness, dilates the pupil, quickens the respiration, increases the frequency of the pulse, and antagonizes the action of muscarin on the heart; but it differs from these alkaloids in producing salivation and increased secretion from the skin, in this respect corresponding to muscarin and pilocarpine, with which substances it is further allied, for muscarin produces giddiness, fainting, prostration, stupor, breathlessness. Internally given, it contracts the pupil; applied locally to the eye, it dilates the pupil; whilst, like pilocarpine, it produces muscular trembling and accelerated pulse.

Mr. Tweedy saw the patients and examined the eyes while under the influence of pituri. He reports as follows: "I have little to add to your account of the effect on the eye of the local application of a solution of pituri, except to note that, although the pupil was widely (not fully) dilated, the accommodation was almost unaffected. The patients could read quite well, and they did not complain of much mistiness. Pituri seems to be a weak mydriatic; strong enough to dilate the pupil for a few hours, but not sufficient to impair the action of the ciliary muscle. Except the smarting, a weak solution of atropine—say one-thirtieth of a grain to an ounce—would produce the same symptoms as the one per cent. solution of pituri, perhaps even including the preliminary contraction. Ophthalmoscopically I discovered nothing."

The Therapeutic Value of Salicylic Acid.

Professor BARTELS (*Deutsche Medic. Wochenschrift*, No. 32–35) states that salicylate of soda acts as powerfully as salicylic acid, although containing only 0.68 of the free acid; that no deep-seated lesions of the intestinal mucous membrane occur even after large doses; but that eruptions and loss of appetite frequently occur in non-feverish patients after the use of the free acid.

The action of salicylic acid is twofold, antipyretic and specific. The antipyretic action may be observed in any febrile patient. In the hectic fever of phthisis it has been given with varying results. In some cases the action was slight or the drug was not well borne, whilst in others it was given for months, producing cessation of the daily rise of temperature, with wonderful restoration of strength and of weight. In typhoid fever, the nerve symptoms became so severe during its administration that it was discontinued. In other fevers it was found to be much less powerful in its action than quinine. Diminution in the frequency of the pulse, profuse sweating, dryness of the mouth, and slight albuminuria, also result from its employment. In diabetic patients, large doses produced severe nervous symptoms; staggering as in intoxication, delirium, and even maniacal violence. These bad effects often restrict the use of the salicylic preparations to small doses, thus decreasing its value as an antipyretic.

Dr. Bartels has employed salicylic acid as a specific in acute rheumatism and in diabetes mellitus, with great success. In the former there was a steady fall of temperature, with remission of the symptoms, and in a few days convalescence; good results were obtained also in chronic rheumatic arthritis. In diabetes mellitus large doses were given, which brought on brain-symptoms, but there was great reduction in the amount of sugar in the urine, and increase in the weight of the body. He concludes that the salicylate of soda has no prophylactic action against infectious diseases, for a diabetic patient, whilst taking large doses of this drug, was seized with erysipelas and died.—*London Med. Record*, Dec. 15, 1878.

Physiological and Therapeutical Effects of Adonis Vernalis.

As it had been noticed that the effects caused by an extract of adonis vernalis were similar to those produced by digitalis, and that in some cases of compensatory troubles the action of the heart could be restored by it, even if digitalis had proved unsuccessful, BUBNOFF undertook, at Professor Botkin's instigation, to make a series of experiments on frogs, which he subsequently published in the